

AMENDMENT

IN THE CLAIMS

Please amend claims 1, 7, 12 and 19 as indicated in Appendix A submitted herewith.

REMARKS

Claims 1-24 are presently pending in the captioned application with claims 1, 7, 12 and 19 being amended and claims 25-28 previously deleted without disclaimer or prejudice as to the subject matter contained therein.

Independent claims 1, 7, 12 and 19 have been amended to contain the limitation that the film have a thickness from 5 to 20 μm . Support for this limitation can be found in the specification at page 10, lines 30-32 of the specification.

No new matter within the meaning of §132 has been added by any of the amendments.

Accordingly, Applicants respectfully request the Examiner to reconsider and allow all claims pending in this application in view of the claim amendments and following remarks.

1. Rejection of Claims 1-28
under 35 U.S.C. § 102(b)

The Office Action rejects claims 1-28 under 35 U.S.C. § 102(b) as being anticipated by WO 91/16376 ("WO '376"). The Office Action states:

WO'376 discloses a packaging film with good clinging properties comprising a terpolymer of at least 50% of ethylene, 2-20% by weight of an unsaturated monocarboxylic acid having 3-8 carbon atoms and 2-20% of a moiety derived from at least one alkyl acrylate, alkyl methacrylate and mixtures thereof, wherein alkyl radical contains 2-12 carbon atoms (see page 3, lines 25-34). The low level of sorbitan fatty acid ester can be added to improve antifogging properties (see page 7, lines 9-19). This expressly meets all the limitations of the instant claims 1-4 and 12-15.

With regard to claims 5, 10, 16-22, 25 and 27, which are concerned with the stretching properties of the films, since the films of WO'376 are identical in their chemical make-up to the instantly claimed films and are made by essentially the same method as instantly claimed films, such properties inherently present in the films of WO'376. Products of identical chemical composition cannot have mutually exclusive properties. A chemical composition and its properties are inseparable. Therefore if the prior art teaches the identical chemical structure, the properties and characteristics applicant discloses and/or claims are necessarily present. In re Spada, 911 F.2d 705,709,15 USPQ2d 1655,1658 (Fed. Cir. 1990). Therefore the limitations of claims 5, 10, 16-22, 25 and 27 are inherently met by WO'376.

The above rejections were also made in the sense of In re Fitzgerald or In re Spada,

which settles that when the claimed compositions are not novel, they are not rendered patentable by recitation of properties, whether or not these properties are shown or suggested in the prior art. The properties not disclosed in the cited reference are believed to be inherent of compositions identical to those instantly claimed.

Applicants respectfully traverse the rejection because the presently claimed compositions are different from those disclosed in WO '376. While the chemical make-up may be similar, the presently claimed compositions are distinguishable in structure and

molecular arrangement from those of the prior art. In particular, the claims recite the limitations of a film having a stress in a machine direction (MD) within a range of from 20 to 40 Mpa when stretched by 100% and a ratio (MD/TD) of the stress in a machine direction to the stress in traverse direction within a range of from 2 to 8 when the film is stretched by 100% in each of said directions and further having a thickness of 5 to 20 μ m.

Applicants note that these claimed physical characteristics sufficiently distinguish the claimed product from the prior art and thereby rebut the Office Action's assertion that the prior art compounds are essentially the same as those presently claimed.

Turning to the rule, the Federal Circuit has held that anticipation requires that each and every element of the claimed invention be disclosed in a single prior art reference. Verdegaal

Bros. v. Union Oil Co. of California, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). Those elements must be expressly disclosed as in the claim. In re Bond, 15 USPQ2d 1566 (Fed. Cir. 1990). The Federal Circuit also ruled that the prior art reference must also be enabling, thereby placing the allegedly disclosed matter in the possession of the public. In re Brown, 329 F.2d 1006, 1011, 241 USPQ 245, 249 (C.C.P.A. 1964). In order to accomplish this, the reference must be so particular and definite that from it alone, without experiment or the exertion of his own inventive skill, any person versed in the art to which it pertains could construct and use it. Id. at 250.

In the present application, independent claim 1 recites a film for stretch-wrapping formed of a resin composition containing an ethylene/(meth)acrylic acid/(meth)acrylic acid ester terpolymer containing not more than 7% by weight of a (meth)acrylic acid ester unit and having a stress in a machine direction (MD) of said film within a range of from 20 to 40 Mpa when the film is stretched by 100%, and a ratio (MD/TD) of stress in the machine direction to the stress in a traverse direction within a range of from 2 to 8 when the film is stretched by 100% in each of said directions and having a thickness of 5 to 20 μ m.

Again, Applicants reiterate that WO '378 neither expressly nor inherently disclose a film having a stress in a machine direction

(MD) within a range of from 20 to 40 Mpa when stretched by 100% and a ratio (MD/TD) of the stress in machine direction to the stress in traverse direction within a range of from 2 to 8 when the film is stretched by 100% in each of said directions and having a thickness of 5 to 20 μm .

where the molecule is arranged

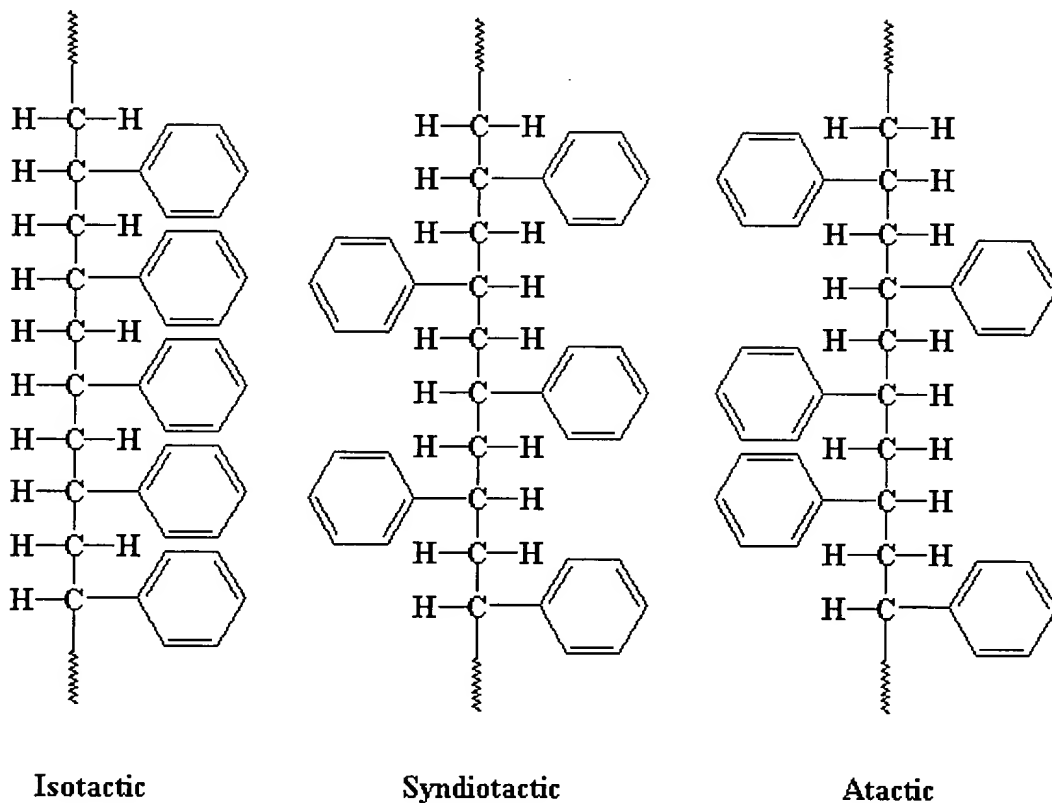
The presently claimed limitations are not merely recitations describing an inherent property but rather a physical manifestation of the particular molecular arrangement of the presently claimed film. While the chemical make-up between the known compounds and the claimed compounds may indeed be similar, the differences in structure impart unanticipated features onto the claimed films. In other words, the entire universe of compounds containing an ethylene/(meth)acrylic acid/(meth)acrylic acid ester terpolymer cannot be said to be anticipated by the disclosure of WO '376.

For example, atactic polypropylene and isotactic propylene have the same chemical formula but have very different molecular arrangements. This structural difference while not reflected in the IUPAC name greatly varies the crystallinity, melting points and mechanical properties of polymers. A regular arrangement of atoms in isotactic or syndiotactic polymers results in an orderly crystalline arrangement whereas an atactic arrangement results in amorphous polymers as shown in Figure A. A similar difference in molecular structure as claimed by the mechanical property of the

nothing disclosed

film clearly distinguishes the presently claimed compounds from the resin compositions of WO '376.

Figure A



Although the particular limitations regarding molecular structure such as tacticity are not claimed, Applicants note that they are entitled to claim physical descriptors of the polymer itself. In other words, the tensile, compressional and flexural strength limitations sufficiently describe a polymer such that they

define the metes and bounds of the invention, which in this case defines the physical attributes of the molecular and structural arrangement of the presently claimed films. Therefore, Applicants have met their burden to show that the presently claimed polymer compositions are different from those described by WO '376 by claiming the limitations directed to a stress in a machine direction (MD) within a range of from 20 to 40 Mpa when stretched by 100% and a ratio (MD/TD) of the stress in machine direction to the stress in traverse direction within a range of from 2 to 8 when the film is stretched by 100% in each of said directions and having a thickness of 5 to 20 μm .

While it can be argued that products of **identical** chemical compositions cannot have mutually exclusive properties, the question is moot in the present application because WO '376 *Does.* not teach chemical structures or properties **identical** to those presently claimed. Furthermore, and as shown above, slight differences in compositions can have significant impacts on the product's mechanical properties, particularly within the art of resin polymers.

One such impact of the presently claimed limitations is the remarkable ability of the presently claimed plastic film to easily tear in the transverse direction without sacrificing the film's ability to adhere to container or packaging walls. As can be

appreciated, the ease of transverse tearing of plastic wraps greatly improves the utility of plastic films in food presentation and preservation. Clearly, one of ordinary skill in the art would not have been able to make the presently claimed physico-mechanical properties without undue experimentation based on the disclosure of WO '376. Furthermore, it can clearly be seen that the claimed film is distinguishable from those of the prior art because WO '376 cannot be said to anticipate every tacticity or molecular arrangement of resin polymers within the entire universe of compounds comprised of ethylene/(meth)acrylic acid/(meth)acrylic acid ester terpolymer. Clearly, each and every claimed limitation is not taught by WO '376.

Accordingly, Applicants respectfully submit that the presently claimed invention is not anticipated by WO '376 and respectfully request the Examiner to reconsider and withdraw the § 102(b) rejection.

2. Rejection of Claims 6, 9, 11, 23, 26 and 28
under 35 U.S.C. § 103(a)

The Office Action rejects claims 6, 9, 11, 23, 26 and 28 under 35 U.S.C. § 103(a) as obvious over WO '376. The Office Action states:

The above claims are product-by-process claims, wherein the limitation not disclosed

in WO'376 is that the film is made by a T-die method. However, in terms of the chemical components and their amounts in a terpolymer the films of WO'376 and the instant claims are identical, which was addressed in the 102(b) rejection. Furthermore, both films are prepared by an extrusion method, the non-specified difference is the shape of die. Applicants are reminded that patentability of the product is based on the product formed - not by method by which it was produced, In re Thorpe, 777 F 2d 695, 227, USPQ 964 (Fed. Cir 1985).

Furthermore, because of the nature of product-by-process claims, the Examiner cannot ordinarily focus on the precise difference between the claimed product and the disclosed product. It is then Applicants' burden to prove that an unobvious difference exists. See In re Marosi, 218 USPQ 289, 292-293 (CAFC 1983). See also footnote 11 O.G. Notice 1162 59-61, wherein a 35 USC 102/103 rejection is authorized in the case of product-by-process claims because the exact identity of the claimed product or the prior art product cannot be determined by the Examiner. In re Brown, 173 USPQ 685 (CCPA 1972), the Court of Customs and Patent Appeals (CCPA) explicitly approved the 102/103 rejection of a product-by-process claim over a reference which showed a product which appeared to be identical or only slightly different from the claimed product.

Applicants respectfully traverse the rejection because Applicants have shown that the presently claimed films are distinguishable from the compositions of WO '376. In particular, the claimed films have the totally unexpected property of being easily tearable in the transverse direction based on the

compositional make-up and production process by which the films are produced. This increased anisotropy in the longitudinal or transverse direction is a completely new and unobvious physico-mechanical property for resin compositions containing an ethylene/(meth)acrylic acid/(meth)acrylic acid ester terpolymer.

Turning to the rule, the Federal Circuit held that a *prima facie* case of obviousness must establish: (1) some suggestion or motivation to modify the references; (2) a reasonable expectation of success; and (3) that the prior art references teach or suggest all claim limitations. Amgen, Inc. v. Chugai Pharm. Co., 18 USPQ2d 1016, 1023 (Fed. Cir. 1991); In re Fine, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988); In re Wilson, 165 USPQ 494, 496 (C.C.P.A. 1970).

But as noted by the outstanding Office Action, a claimed composition which is alleged to be identical to the prior art composition can be rebutted by Applicants if something in the composition which makes it distinguishable from the prior art is shown. See Ex parte Clapp, 277 USPQ 972, 973 (Bd. Pat. App. & Inter. 1985). In the present application, that difference which distinguishes the presently claimed invention from films of the prior art is the claimed physical limitations of an ethylene/(meth)acrylic acid/(meth)acrylic acid ester terpolymer that contains not more than 7% by weight of a (meth)acrylic acid ester unit, wherein the forming of said film is effected according

to the T-die method. It is critical that the presently claimed films contain specific amounts of terpolymer resin containing (meth)acrylic acid ester unit in a relatively low range. Moreover, the range should not be more than 7% by weight and not smaller than 0.1% by weight and have a thickness less than 5 μm or greater than 20 μm .

These limitations ensure that films, particularly those used in automatic wrapping food, withstand large stresses when stretched in a machine direction. Conventional stretch-wrapping films, on the other hand, are incapable of withstanding large stresses in the machine direction. Even when stretch-wrapping films are designed to withstand large stresses, a new problem arises. The stronger films cannot easily be cut in the transverse direction.

Despite teachings disclosing the exact chemical make-up of resin films, one of ordinary skill in the art would not have had any motivation to modify the compositions of WO '376 within the stretch-wrapping plastic-wrap art to derive a stretch wrapping film which tears easily in the transverse direction while maintaining both its adhesion properties and ability to stretch. Moreover, and as stated supra, the presently claimed limitations are not merely recitations describing an inherent property but rather limitations defining the metes and bounds of the invention. That the presently claimed film withstands a particular stress range in a machine

direction as opposed to a longitudinal or transverse direction is a physical manifestation of the particular molecular arrangement of the presently claimed film, not merely a recitation of inherent properties.

Admittedly, the chemical make-up between the known compounds and the claimed compounds are indeed similar. However, they are not identical and as any one of ordinary skill in the art would know, small differences in the chemical make-up and process conditions of polymers have a significant impact on the final polymer product. For example, atactic polystyrene is a completely amorphous plastic. However, syndiotactic polystyrene produced by metallocene catalysis vinyl polymerization results in a totally crystalline polymer with a melt temperature of 270° C. The chemical compositions of atactic and syndiotactic polystyrene are the same. However, the difference in process conditions impart totally unexpected and very remarkable tensile, compressional and flexural strength values.

Clearly, the present invention satisfies the need for films that can easily be cut in the transverse direction while maintaining their stretch strength sufficient for automatic wrapping and stretch-wrapping. One of ordinary skill simply would not have been motivated to make the claimed limitations in the absence of any such teachings in WO '376. Applicants have now

sufficiently distinguished the presently claimed invention over the known art.

Accordingly, Applicants respectfully submit that the presently claimed invention is unobvious over WO '376 and respectfully request the Examiner to reconsider and withdraw the rejection of the presently pending claims under 35 U.S.C. § 103.

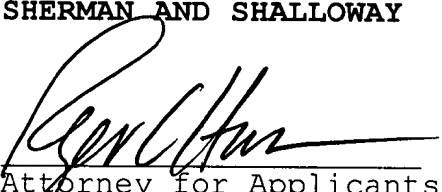
CONCLUSION

In light of the foregoing, Applicants submit that the application is now in condition for allowance. The Examiner is therefore respectfully requested to reconsider and withdraw the rejection of the pending claims and allow the pending claims. Favorable action with an early allowance of the claims pending is earnestly solicited.

Respectfully submitted,

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